

ED502T Thru ED506T

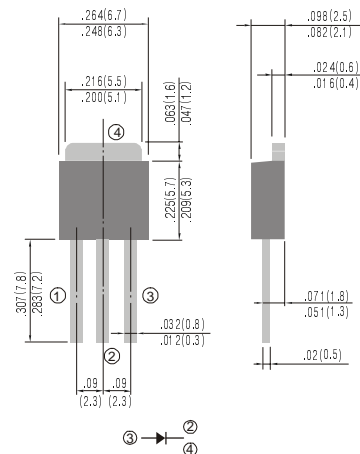
SUPER FAST RECOVERY RECTIFIER

VOLTAGE - 200 to 600 Volts CURRENT - 5.0 Amperes

FEATURES

- For thorough hole applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering:
260°C / 10 seconds at terminals

TO-251AB



MECHANICAL DATA

Case: TO-251 molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode

Weight: 0.015 ounce, 0.4 gram.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	ED502T	ED503T	ED504T	ED506T	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	300	400	600	Volts
Maximum RMS Voltage	V_{RMS}	140	210	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	200	300	400	600	Volts
Maximum Average Forward Rectified Current at $T_C=75^\circ\text{C}$	$I_{(AV)}$	5.0	5.0	5.0	5.0	Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	75	75	75	75	Amps
Maximum Instantaneous Forward Voltage at 5.0A (Note 1)	V_F	0.95	1.25	1.25	1.70	Volts
Maximum DC Reverse Current (Note 1) $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	5.0 50	5.0 50	5.0 50	5.0 50	μA
Maximum Thermal Resistance (Note 2)	$R_{\theta JC}$ $R_{\theta JA}$	7 80	7 80	7 80	7 80	$^\circ\text{C} / \text{W}$
Maximum Reverse Recovery	T_{RR}	35	35	35	35	ns
Storage Temperature Range	T_{STG}	-55 to +150				$^\circ\text{C}$

NOTES:

1. Pulse Test with $PW=300\mu\text{sec}$, 2% Duty Cycle.
2. Mounted on P.C. Board with 14mm^2 (.013mm thick) copper pad areas.

RATING AND CHARACTERISTIC CURVES

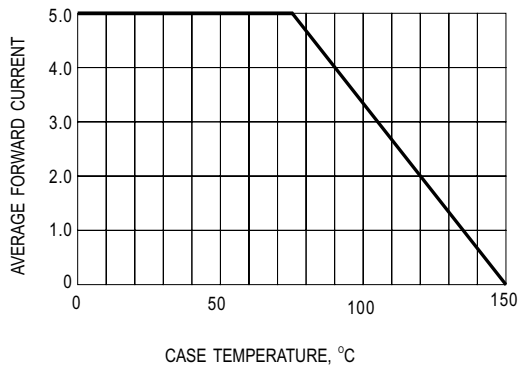


Fig.1- FORWARD CURRENT DERATING CURVE

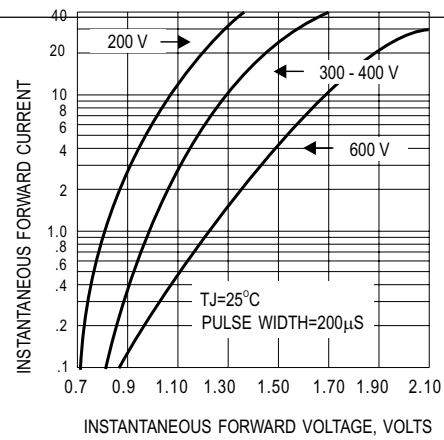


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

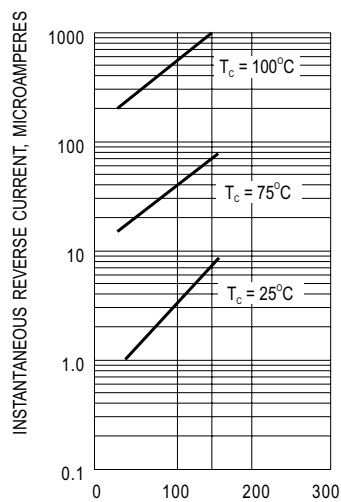


Fig.3- TYPICAL REVERSE CHARACTERISTIC

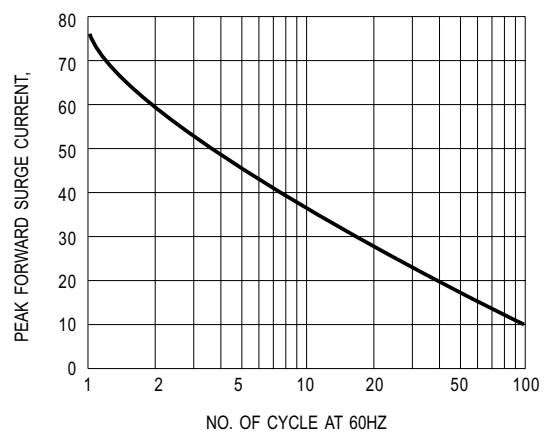


Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT

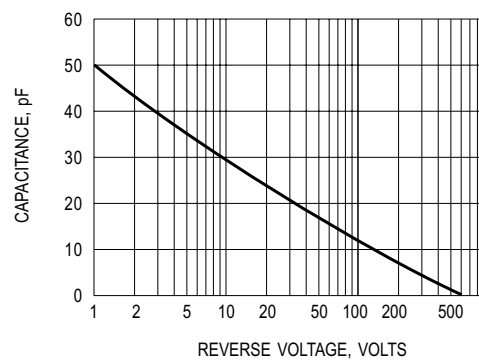


Fig.5- TYPICAL JUNCTION CAPACITANCE